IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant:	R.D. Thompson	Attorney Docket No. MSFT115607
Application No:	09/699,239	Group Art Unit: 2143
Filed:	October 27, 2000	Examiner: J.C. Pwu
Title:	SYSTEM AND METHOD FOR DISTRIBUTED CACHING USING MULTICAST REPLICATION	

APPELLANT'S APPEAL BRIEF

Seattle, Washington

August 30, 2005

TO THE COMMISSIONER FOR PATENTS:

This brief is in support of a Notice of Appeal filed in the above-identified application on March 2, 2005, to the Board of Patent Appeals and Interferences appealing the Decision, dated September 2, 2003, of the Primary Examiner finally rejecting Claims 1-23.

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I.   REAL PARTY IN INTEREST

The subject application is owned by Microsoft Corporation, of Redmond, Washington.

II.   RELATED APPEALS AND INTERFERENCES

Upon information and belief, appellant submits that there are no related appeals or interferences that may directly affect or have a bearing on the decision of the Board of Appeals and Interferences (hereinafter, the "Board") in the pending appeal.

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III. STATUS OF CLAIMS

Claims 1-23 are pending in the application and are on appeal to the Board.

No claims have been canceled.

IV. STATUS OF AMENDMENTS

There are no outstanding amendments to the claims.

V.   SUMMARY OF CLAIMED SUBJECT MATTER

The present invention is generally directed toward a system and method for processing/transferring multi-portion data from a server to a client computer in response to a request. See, *Specification*, page 9, lines 13-18. Multi-portioned data may take on numerous forms, but as one example, advertisement content referenced by a URL (e.g., a Web page) may be considered and delivered as multi-portion data. In particular, the advertisement content may include both displayable content (as a first portion), as well as a redirect reference, particularly an HREF (as a second portion). See, *Specification*, page 9, lines 13-18.

The presented system includes a content server that obtains a request (the first request) for multi-portion data, and in response, generates an identifier corresponding to the request and associates the identifier with the request. See, *Specification*, page 12, lines 20-25. The content server returns a first portion of the data, such as the displayable content references by the URL. Additionally, the content server stores a second portion of the data, such as a redirect reference (the HREF) that is accessed in case a user clicks on the displayed content (i.e., the first portion), in a cache according to the first identifier. See, *Specification*, page 12, lines 12-25. Assuming the user selects/clicks on the displayed content (i.e., the first portion), the content provider receives another request (the second request) for the second portion of the provider data. See, *Specification*, page 12, lines 12-25. The content server generates a second identifier, based on the second request for the second portion of the data, and associates this second identifier with the second request. See, *Specification*, page 12, lines 12-25. The content server compares the second identifier associated with the second portion of the data with the first identifier associated with the second portion of the data and, if the identifiers match, the content server returns the second portion of the data to the requestor. See, *Specification*, page 12, line 24-page 13, line 4.

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Numerous advantages may be realized in accordance with one or more of the embodiments of the present invention. In one aspect, the present invention provides the ability for processing multi-portion data and for transferring the data in response to requests for the data portions. This resolves the problem of network protocols preventing third party servers from returning multiple data references. Typically, network protocols could prevent third party servers from returning both an advertisement media and a redirection reference. See, *Specification*, page 2, lines 9-15. In those instances, often the advertisement media is transferred to a browser application while the redirection reference is lost. In such an instance, if a user viewing the advertisement wishes to access the advertisement provider, the redirection request cannot be completed because the redirection reference was not transferred by the third-party server. Additional advantages may also be realized in accordance with the present invention.

VI.   ISSUES TO BE REVIEWED ON APPEAL

The issue presented for review by the Board is as follows:

Whether the present claims are obvious in view of the cited references, and more particularly, whether McGee and Rieth, alone and in combination, teach or suggest each element as recited in Claims 1 and 13.

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VII.   ARGUMENT

Prior to presenting appellant's arguments as to why appellant believes that the 35 U.S.C. § 103(a) rejection are in error, a brief description of the cited references, U.S. Patent No. 6,393,468 to McGee (hereinafter "McGee") and U.S. Patent No. 6,314,597 to Rieth et al. (hereinafter "Rieth"), is presented.

McGee (U.S. Patent No. 6,393,468)

McGee is purportedly directed toward a system for controlling access to data. In particular, McGee describes a system for controlling customer access to a service provider's major customer service system ("MCSS") via the Web. Access to the system is controlled by providing customers with a tailored interface to the service provider's database using a conventional Web Browser and Internet connection. See, *McGee*, Col. 5, lines 56-58. A session framework is used by the service provider to control or limit customer access to database facilities. "[T]he framework enables control over which pages are accessible by which customers, and the order in which a customer can access Web pages." See, *McGee*, Col. 6, lines 10-13.

To control access, the Web server implements a session manager 320 that intercepts client requests as they traverse the Web server stack. See, *McGee*, Col. 6, lines 56-61. Once a user attempts to log-in to the system, via a log-in page, a user session is allocated to that user. See, *McGee*, Col. 7, lines 7-9.

Figure 4 of McGee describes that once a browser establishes a connection with the server and sends a request for a page by forwarding to the server the URL for the page, the session manager 320 intercepts the URL. The session manager then determines whether the URL is for a login page, and if so, no authentication is required and a login page is returned. If it is not a request for a login page, the request is authenticated and an HTML file retrieved. The HTML file

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is then tokenized by the session manager 320 and each URL embedded in the file is replaced with a random, ten-digit token. See, *McGee*, Col. 10, lines 19-38. Additionally, a session store 330 is updated with each tokenized URL and the actual URL.

Upon receipt of a request for a tokenized URL, the session manager intercepts the request and accesses the session store to match the received tokenized URL with a tokenized URL in a Page Option entry. If found, the identity of the accessing browser is determined by comparing its IP address with the IP address stored in the Page Option entry for the token. If the addresses match, the real URL for the file is retrieved from the Page Option entry. The real URL points to the required HTML file in the file store, or the gateway in the gateway store. See, *McGee*, Col. 12, lines 45-55.

Rieth (U.S. Patent No. 6,314,597)

Rieth is purportedly directed toward a system and method for operating a server to authorize client access to server objects based upon compressed object identifiers. See, *Rieth*, Abstract. A compressed object identifier, as described in Rieth, is generated by CRC hashing a string formed by concatenating a user attribute, a user profile, an object identifier, and a key. The resulting identifier is associated with a client object to form a server object. Thereafter user access is authorized by CRC hashing to the same object identifier from a user request. See, *Rieth*, Col. 2, lines 25-33.

Rieth is not directed toward, and does not describe, separately delivering multi-portion data. In particular, Rieth fails to teach or suggest a system and method for providing a first portion of data in response to the request. Additionally, Rieth does not discuss or describe generating identifiers corresponding to a request. Still further, Rieth does not discuss or describe storing a second portion of the data and, in response to receiving a second request, providing the second portion in response to a second request if identifiers match.

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Issue: Whether McGee And Rieth, Alone And In Combination, Teach Or Suggest Each Element

As Recited In Claims 1 And 13

Claim 1

Appellant asserts that McGee and Rieth, alone and in combination, fail to teach or suggest the following elements of Claim 1:

"obtaining a second request for the second portion of the provider data,"

"generating a second identifier corresponding to the second request," and

"returning the second portion of the provider data if the second identifier matches the first identifier".

The Office Action asserts that McGee discloses essentially all elements of Claim 1 except that McGee does not disclose, teach, or suggest "generating a first identifier" and "generating a second identifier". See, *Office Action*, page 4. The Office Action then relies upon Rieth to disclose the elements "generating a first identifier" and "generating a second identifier". Appellant disagrees.

In order to more fully and clearly appreciate why the Office Action is incorrect in asserting that McGee discloses, teaches, or suggests essentially all elements of Claim 1, a concise statement of the Office Actions interpretation of McGee with respect to the present invention is warranted and presented in the subsequent paragraph.

The Office Action equates McGee's request for a Web page as the "first request for the provider data." See, *Office Action*, page 3, second paragraph. As indicated above, the McGee system responds by obtaining the requested Web page, replacing all URL links in the Web page with tokens, and returning the modified/tokenized Web page to the requesting client. The Office Action identifies the returned content (i.e., the modified Web page) as the "first portion of the provider data." See, *Office Action*, page 3, fifth paragraph. The un-tokenized URL links are stored in conjunction with their corresponding tokens for later reference. The Office Action

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equates the un-tokenized URL references from the Web page as the second portion of the requested provider data. See, *Office Action*, page 3, sixth paragraph.

Assuming that the Office Action's interpretation of McGee with respect to the present invention, such that the Office Action's interpretation lies within the broadest reasonable interpretation of the Claims (which appellant expressly denies), appellant asserts that McGee and Rieth, alone and in combination, yet fail to teach or suggest the elements of Claim 1 identified above.

<u>McGee And Rieth Fail To Teach Or Suggest The Element "Obtaining A Second Request For The Second Portion Of The Provider Data"</u>

With regard to "obtaining a second request for the second portion of the provider data," the Office Action points to McGee, Col. 12, lines 32-35 as disclosing this element. See, *Office Action*, page 3, paragraph 7. This passage in McGee, "match[ing] the tokenized URL received as part of the request with a tokenised URL," refers to receiving a client request for another Web page based on a link (tokenized) in the currently displayed Web page.

It is assumed that the Office Action is interpreting the "request with a tokenized link" (from McGee) to the "second request" (as recited in Claim 1). However, as those familiar with Web browsing will readily recognize, requesting content based on a "link" (tokenized or not) displayed in a Web page is clearly a request for another Web page. Appellant asserts that this request for another Web page cannot reasonably be interpreted or construed as a request for the second portion of the provider data. To interpret this passage of McGee as requesting the second portion of the data (which the Office Action previously identified as the non-tokenized URL) is to suggest that the client is requesting the non-tokenized URL, not the page referenced by the URL. Of course, this interpretation is completely contrary to the express intent of McGee,

namely withholding the non-tokenized URL from the client so that the client must always navigate according to the strictures placed by the McGee system.

McGee, Col. 4, lines 14-16, states that an "advantage of this aspect of the invention is that **the client is not provided with the actual reference information, such as a URL,** for the further item(s) of information." Other areas of McGee further confirm that it is an object of the invention that the user is not able to ascertain actual reference of a tokenized URL, such that the McGee system can control user access to the information. See, *McGee*, Col. 13, lines 10-19; Col. 13, lines 36-38.

With the knowledge that McGee expressly denies the non-tokenized URL to the client, one cannot reasonably interpret obtaining a second request for an additional Web page (based on a tokenized URL) as "obtaining a second request for the second portion of the provider data," as recited in Claim 1.

Clearly, returning what the Office Action has identified as the second portion of the provider data (the un-tokenized URL reference) to the client would be contrary to the express intent and meaning of McGee, appellant asserts that McGee, in fact, fails to teach or suggest "obtaining a second request for the second portion of the provider data."

Appellants note that the Office Action does not rely upon Rieth as teaching or suggesting this element. However, Rieth is directed at accessing a single object based on a previously-generated token. Appellants submit that Rieth fails to teach or suggest a first a second portion of provider data, and therefore also fails to teach or suggest "obtaining a second request for the second portion of the provider data."

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McGee And Rieth Fail To Teach Or Suggest The Element "Generating A Second Identifier Corresponding To The Second Request"

With regard to the element "generating a second identifier corresponding to the second request," the Office Action states that McGee fails to explicitly disclose this element, but points to *inter alia*, Rieth, Col. 2, lines 54-60, as "generating a second identifier corresponding to the second request." See, *Office Action*, page 4, paragraph 4. Appellants respectfully disagree.

In an Advisory Action on this matter, dated February 25, 2005, appellants (then applicants) were accused of using a piecemeal analysis of the references to refute the teachings of McGee and Rieth. However, appellants submit that, perhaps, it is the Office Action that is applying piecemeal analysis in rejecting this claim, particularly interpreting the above-cited element in isolation from the other elements of the claim.

The element "generating a second identifier corresponding to the second request" must be interpreted in light of the other elements in the claim. In particular, the preceding element clearly defines the second request as a second request for the second portion of the multi-portioned data. Thus, when read in the context of the entire claim, and in view of the Office Action's own interpretation of what constitutes the "second portion" of the provider data, this element should be read as generating a second identifier corresponding to a second request for the un-tokenized URL reference.

As indicated above, Rieth discloses generating a tag for an object, and associating that tag with the object for authentication and/or authorization purposes. See, *Rieth*, Col. 2, lines 54-60. When a client subsequently attempts to access that object, the Rieth system generates a second tag using the same algorithm as the first, and if the tags match, authentication/authorization is presumed, and the client can access the object. See, *Rieth*, Col. 2, line 66-Col. 3, line 4. The

Office Action apparently interprets/equates the tags as the generated identifiers in the present claim. See, *Office Action*, page 4, paragraph 4.

While Rieth purportedly generates two tags, when this element is read in context with the other elements of the claim, it is perfectly clear that Rieth fails to teach or suggest "generating a second identifier corresponding to the second request" **for a second portion (i.e., the un-tokenized URL) of the provider data**. Thus, coupled with the Office Action's admission that McGee fails to teach or suggest generating a second identifier, appellants assert that McGee and Rieth, alone and in combination, fail to teach or suggest the element "generating a second identifier corresponding to the second request."

<u>McGee And Rieth Fail To Teach Or Suggest The Element "Returning The Second Portion Of The Provider Data If The Second Identifier Matches The First Identifier"</u>

With regard to the element "returning the second portion of the provider data if the second identifier matches the first identifier," the Office Action points to McGee, Col. 12, lines 32-35, and 41-52, as disclosing this element. See, *Office Action*, page 4, paragraph 4. Appellants respectfully disagree.

The cited passage of McGee describes what occurs when a browser requests a Web page based on a tokenized URL. When receiving a request for a Web page based on a tokenized URL, the McGee system checks whether a second token matches the requested token (that references other data), and if so, retrieves the un-tokenized reference from its session store, and **retrieves the requested Web page based on the un-tokenized reference**. In other words, this passage of McGee does not return the second portion of the provider data (which the Office Action has identified as the un-tokenized URL reference), but merely **uses** that second portion to return other data.

The above argument is also bolstered by the fact that McGee explicitly states that its system should never return the un-tokenized URL reference to the client. To do so would enable the client to bypass the McGee system, which is clearly contrary to McGee's express teachings. Clearly, McGee teaches away from returning the second portion/un-tokenized URL reference.

In sum, McGee fails to teach or suggest **"returning the second portion** of the provider data if the second identifier matches the first identifier" as this second portion is (as the Office Action asserts) the un-tokenized URL reference.

While the Office Action does not rely upon Rieth as teaching or suggesting this element, appellants submit that Rieth fails to teach or suggest "returning the second portion of the provider data if the second identifier matches the first identifier."

The Office Action Failed To Make A Proper *Prima Facie* Case Of Obviousness In Regard To Claim 1

It is well established that in order to make a proper prima facie case of obviousness, three criteria must be met: (1) there must be some suggestion in the cited references or the art in general to combine the references; (2) there must be a reasonable expectation of success; and (3) the references must teach or suggest each element of the claim. See, *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). As illustrated above, McGee and Rieth, alone and in combination, fail to teach or suggest each element of Claim 1.

Additionally, it is also well established that where the proposed modification or combination of one or more references would change the principle of operation of references, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. See, *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). As already discussed, returning the second portion of the provider data (i.e., the un-tokenized URL reference as the Office Action suggests) would clearly change the principles of operation of McGee, namely, withholding the

actual URL reference from a client/user. Accordingly, the teachings of McGee and Rieth are insufficient to establish a *prima facie* case of obviousness.

As the combination of McGee and Rieth fail to teach or suggest each element of Claim 1, and further, as the proposed modifications to McGee and Rieth would clearly change the principles of operation set forth in McGee, appellant asserts that a proper prima facie case of obviousness was not make. Accordingly, appellants request that the 35 U.S.C. § 103(a) rejection of Claim 1 be withdrawn, and the claim allowed.

Claims 2-12

If an independent claim is nonobvious under 35 U.S.C. § 103(a), then any claim depending from that independent claim is also nonobvious. See, *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Claims 2-14 are dependent claims depending from Claim 1. As indicated above, appellant submits that Claim 1 is non-obvious in view of McGee and Rieth, and in condition for allowance. Accordingly, appellant asserts that Claims 2-14 are also non-obvious and in condition of allowance. Therefore, appellant requests that the 35 U.S.C. § 103(a) rejections of Claims 2-14 be withdrawn, and the claims allowed.

Claim 13

While differing at least in scope, Claim 13 recites similar elements to those recited in Claim 1. In particular, Claim 13 recites the following elements:

> "the content server generates a second identifier corresponding to a second request," and

> "the content server returns the second portion of the provider data upon receiving a second request for the provider data from the content requestor."

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The Office Action states that Claim 13 recites similar elements to Claim 1, and is therefore rejected for the same rationale as Claim 1. See, *Office Action*, page 7, first paragraph. This, of course means that the second portion of the provider data is the un-tokenized URL reference, and that, in this light, the second request must be for another Web page, not for the un-tokenized URL reference. However, the elements described above clearly indicate that the request is for the second portion of the provider data (which would be the un-tokenized URL reference per the Office Action's rationale.) This cannot be so as McGee explicitly states that its intent is to withhold such information from a user. Clearly, assuming the second portion of data is the un-tokenized URL reference, McGee teaches away from returning such to a client.

For the reasons stated above, and further described in regard to Claim 1, appellant submits that McGee and Rieth, alone and in combination, fail to teach or suggest each element of this claim. Appellant further submits that the proposed modification of McGee would render McGee unsuitable for its intended purpose, and therefore, there can be no motivation to make such modification. In this light, appellant submits that a proper prima facie case of obviousness has not been established, and requests that the 35 U.S.C. § 103(a) rejection of Claim 13 be withdrawn, and the claim allowed.

Claims 14-23

Claims 14-23 are dependent claims depending from independent Claim 13. As indicated above, appellant submits that Claim 13 is non-obvious in view of McGee and Rieth, and in condition for allowance. Accordingly, appellant asserts that Claims 14-23 are also non-obvious and in condition of allowance. Therefore, appellant requests that the 35 U.S.C. § 103(a) rejections of Claims 14-23 be withdrawn, and the claims allowed.

VIII.   CLAIMS APPENDIX

1.   A method in a computer system for associating provider data including a first and second portion with a data request, the method comprising:

obtaining a first request for the provider data;

in response to obtaining the first request:

generating a first identifier corresponding to the first request;

associating the first identifier with the request for the provider data;

returning the first portion of the provider data; and

storing the second portion of the provider data according to the first identifier;

obtaining a second request for the second portion of the provider data; and

in response to obtaining a second request:

generating a second identifier corresponding to the second request;

associating the second identifier with the second request; and

returning the second portion of the provider data if the second identifier matches the first identifier.

2.   The method as recited in Claim 1, wherein generating the first identifier includes generating a first hash table key corresponding to the request for the provider data; and wherein generating the second identifier includes generating a second hash table key corresponding to the request for the second portion of the provider data.

3.   The method as recited in Claim 2, wherein generating a first hash table key and generating a second hash table key each include utilizing a provider data IP address to generate the first hash table key and the second hash table key.

4.   The method as recited in Claim 2, wherein generating a first hash table key and generating a second hash table key each include utilizing a graphical user ID to generate the first hash table key and the second hash table key.

5.   The method as recited in Claim 1, wherein the first portion of the provider data includes a URL of content data.

6.   The method as recited in Claim 5, wherein the content data is advertisement media.

7.   The method as recited in Claim 5, wherein the second portion of the provider data includes an HREF relating to the content data.

8.   The method as recited in Claim 1, wherein the step of storing the second portion of provider data according to the first identifier includes:

storing the second portion of the provider data in a first cache; and

replicating the second portion of the provider data to at least a second cache.

9.   The method as recited in Claim 8, wherein the step of returning the second portion of the provider data includes:

requesting data corresponding to the second identifier from a first cache;

if no match is found, requesting data matching the second identifier from the second cache.

10.   The method as recited in Claim 9, wherein the step of requesting data from a second cache further includes replicating the request for data matching the second identifier to at least two or more cache.

11.   A computer-readable medium having computer-executable instructions for performing the method recited in any one of Claims 1-10.

12.   A computer system having a processor, a memory, and an operating system, the computer system operable to perform the method recited in any one of Claims 1-10.

13.   A computer system for providing data to a requesting party, the system comprising:

at least one content requestor for requesting provider data;

a content server in communication with the content requester and operable to provide a first and second portion of the provider data to the content requester;

wherein the content server generates a first identifier corresponding to the request, returns the first portion of the provider data and stores the second portion of the provider data according to a first identifier upon receiving a first request for the provider data from the content requestor; and

wherein the content server generates a second identifier corresponding to a second request, and returns the second portion of the provider data upon receiving a second request for the provider data from the content requestor if a second identifier matches the first identifier.

14.   The system as recited in Claim 13, wherein the content server includes a cache for storing the second portion provider data.

15.   The system as recited in Claim 14, wherein the content server cache stores the second portion of the provider data in a hash table and wherein the first and second identifiers are hash table keys.

16.   The system as recited in Claim 14, further comprising a click server in communication with the content server and operable to store and recall the second portion of the provider data.

17.   The system as recited in Claim 16, wherein the click server includes two or more cache for storing the second portion of the provider data.

18. The system as recited in Claim 17, wherein the two or more cache contain identical contents.

19. The system as recited in Claim 13, wherein generating a first identifier includes generating a hash key identifier from data relating to the requesting party.

20. The system as recited in Claim 19, wherein the data relating to the requesting party includes a data identifier, an IP address, and data relating to a content request.

21. The system as recited in Claim 13, wherein the first portion of the provider data is associated with an advertisement media and the second portion of the provider data is a redirection reference to the advertisement media.

22. The system as recited in Claim 1, wherein the second portion of the provider data is stored in a click server.

23. The system as recited in Claim 22, wherein the click server includes a virtual interface protocol in communication with a plurality of cache servers, and wherein the second portion of the provider data is stored in at least one of the plurality of cache servers.

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IX. EVIDENCE APPENDIX

None

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X.   RELATED PROCEEDINGS APPENDIX

None

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CONCLUSION

In view of the foregoing remarks, appellant submits that pending Claims 1-23 are in condition of allowance. Accordingly, a reversal of the Examiner's rejections, and allowance of the claims, is respectfully requested.

Respectfully submitted,

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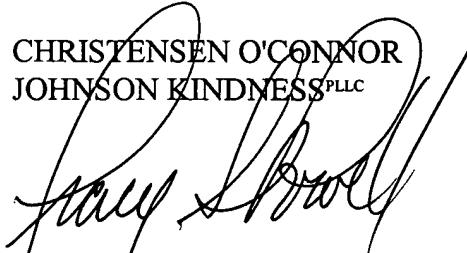
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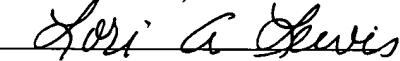
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